

Amendments to the Specification:

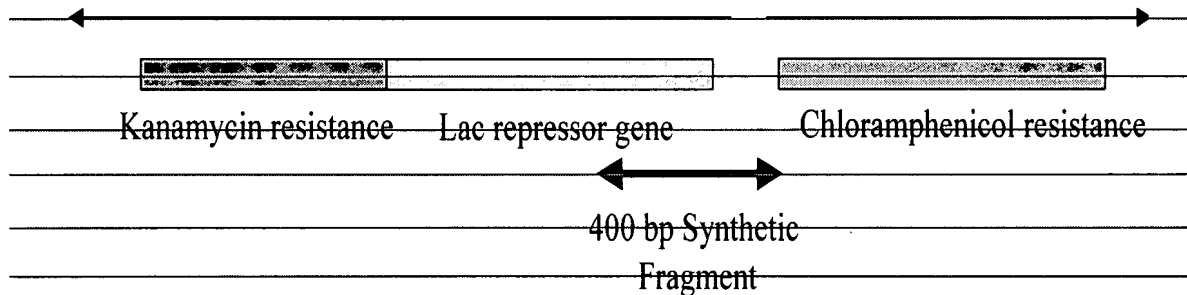
At page 6, between lines 9 and 10, please add the following new paragraph:

-- Figure 3 depicts a lac repressor (lacI) cloning strategy.--

At page 16, beginning at line 4, please replace the section with the following redlined section:

System for economical, quantitative measurement of low error rates:

Vector and synthetic fragment for error detection. The lac repressor (lacI) cloning strategy shown ~~below~~ in Figure 3 is to allow the quantitative measurement of low error rates. The cloned synthetic fragment carries two functions: 1) a promoter and 300 bp of the lacI gene, and 2) a promoter for the chloramphenicol resistance gene. The lacI gene is well characterized and simple to detect using a colorimetric assay. The first 60 amino acid residues of the protein comprise a DNA binding domain; most or all changes in 28 of the amino acid residues in this domain lead to an inactive repressor.



At page 17, line 13, please replace the paragraph with the following redlined paragraph:

DHPLC. Partially denaturing high performance liquid chromatography (DHPLC) has established itself as a powerful tool for DNA variation screening and allele discrimination (1). At temperatures where DNA molecules are fully duplexed, reverse-phase HPLC using commercially-available columns can separate DNA fragments by length with high resolution. At elevated temperatures, heteroduplexes will partially denature and show reduced retention times relative to fully-duplexed molecules. At the appropriate temperature they appear as distinct peaks from homoduplex molecules of the same size. The temperature at which heteroduplex and homoduplex molecules can be distinguished depends on the sequence and length of the molecule

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and can be predicted using software available from Stanford University (<http://insertion.stanford.edu/melt.html>). DHPLC is used in combination with the digestion methods described below.